

“DESIGN A MODEL AND ALGORITHM FOR FOUR GESTURE IMAGES COMPARISON AND ANALYSIS USING HISTOGRAM GRAPH”

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ABSTRACT

This Research paper is basically used for compared between four gesture images. The uses of images posture and gesture are making for interaction with Nissho device and Histogram Graph describe both the various technique for performed accuracy and analyzing of graph techniques and methods. Firstly pitching some equipment in gesture area then getting output images processed is to be store in temporary buffer. Secondly we are categorized images in to two part first one Poster size Accuracy and gesture size accuracy technique. Before next process is applied by MATLAB. There are attached two gesture images and comparisons type's. first method is MATLAB coding and second method is generated the histogram graph. The next process is to be Histogram mountain point (i.e. X and Y-Axes value), then last process is compared two mountain point value by MATLAB coding. To be performed the result of the some gesture are similar or not similar.

KEYWORDS: Nissho Electronic Device, 5DT Data Glove TM Equipments, Gesture Images, Buffer Memory, MATLAB S/W

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INTRODUCTION

The Approach of these researches is to provide a broad area to the fields of Images gesture analysis with histogram mechanism for interaction with human and computers applications. It present an extensive of Review based problems and techniques. I issues relevant to using Gesture images with application users interfaces, and consolidating buffer information in the stack field. It also gives an easy review of the information presents so PUSH, POP operation in stack field. The various analyzing tools and techniques we interact systems interaction. Although other review technique has been written on various subsets of gesture images. It is intended to be a mountain point for anyone interested in using images Gesture in their interfaces and to be give researchers a beginning point for explore the more open issue.

PURPOSE OF RESEARCH

Nishho Stereo Sensor Device

The previously develop the 5DT Glove based stereo sensor with fusion device consisting the four main components: the online colored checker for image color, the colored-based images detection, the images tracking, and finally gesture analyses. The online colored checker components allowed to co sequent colored processed to

be adapted. The colored characteristic of the focus light source then images are capture. These network code colored checkers have been show the effective approached with known RGB colored characteristic of focus many light sources encounter.

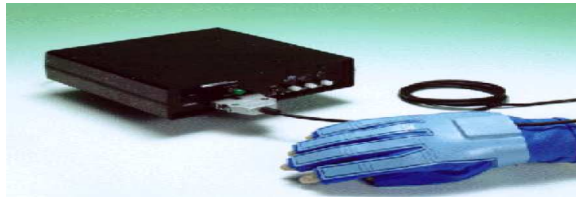


Figure 1: Nissho Electronics Super Glove Input Device

METHEDOLOGY AND MATERIALS

5DT Data Glove Technology

The Data input Gloves H/W based analyses techniques is a very important for getting gesturing images, but it do not removed to needed for S/W Authentication. The Data Glove is fair and accurate but does not suite for gestured complex images. Unfortunately, the gesture normal study has been performed on the accurate of the 5DT Super data Glove and it is do not commonly discussed in the research. The Virtual Technology Cyber data Glove and control box TM (see in Figure) takes a human approached based in following shown Figure.



Figure 2: Fake Space Pinch TM

PROPOSED ALGORITHM

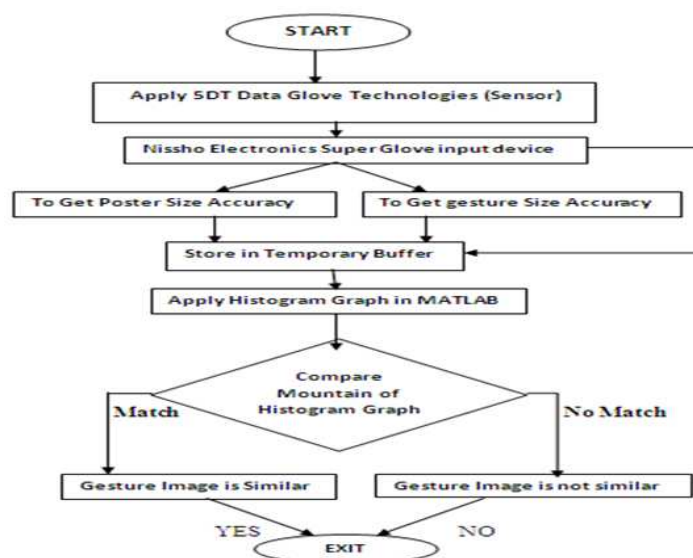


Figure 3

REVIEW OF LITERATURE

Gesture Images

When gesture images come out from people body is natural. The Oxford Dictionary, gesture images is a movement and it should be part of a human body. Especially a head or hand, to express various is meanings. The development portion is to develop a new practical technology for alternative human interface. This gesture definition has been narrowed down to only hand and is given particular attention on details that Asian hands has. Human do most things by using hand. The uniqueness covers from picking the smallest object to even do specialize work or even giving meaningful gestures to convey information. Take traffic police for instance, by just moving his hand and come out with different gesture each explaining go, stops or wait to the drivers.

Data Base: Image Processing

The Image processing is technique for inputting some information's is a form of gesture images. He takes to like that photography or frame of information. The information contents set of images. Most of the image processing treated 2D signal and it should be apply standard signal processing technique. He cleared about image processing technique contents many kinds' manipulations. We are the function analyses, pixels analyses, picture analyses, creating data base, information's getting to an sensor device e.t.c. It has stored information in three code plan RGY (Red, Green, and Yellow) formats plans.

Four Set of Gesture Images See in Figure Below



Figure 4: Infrared Gesture Images (a) to (d)



Figure 5: Figure Shows 3D Model Approach 3D



Figure 6: Image Gesturing Recognition Process

EXPERMENTS WITH PROPOSED SYSTEM

Comparison of Two Images with Create Histogram Graph

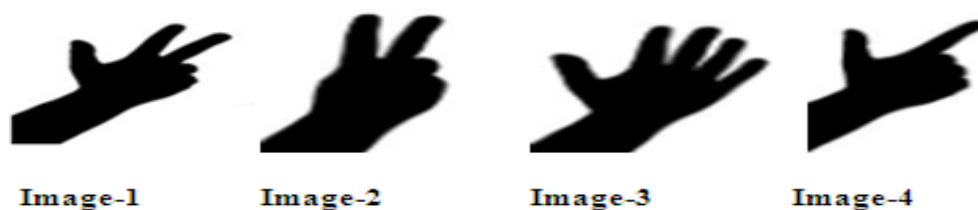


Figure 7

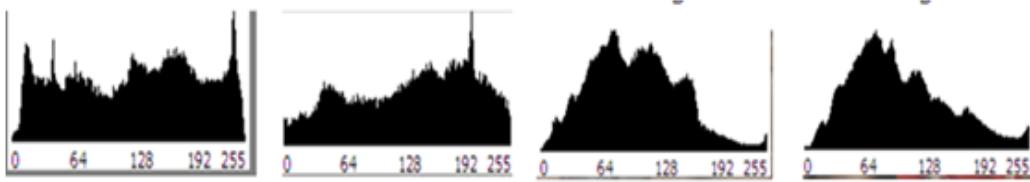


Figure 8: Histogram of graph Images1, 2, 3, 4



Figure 9

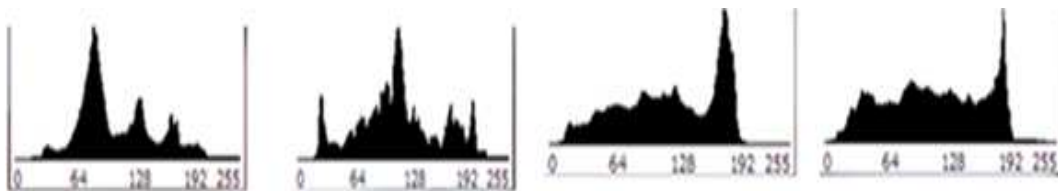


Figure 10: Histogram of Graph Images 5, 6, 7, 8



Figure 11

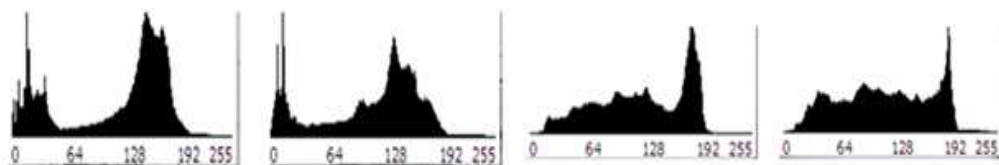


Figure 12: Histogram of Graph Images 9,10,11,12



Figure 13

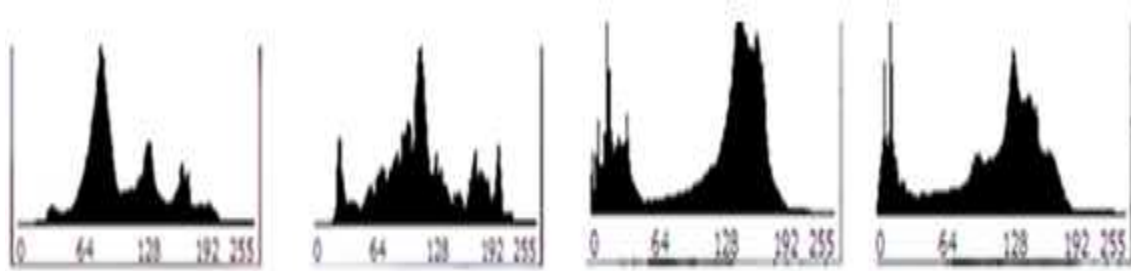


Figure 14: Histogram of Graph Images 13, 14, 15, 16

MATLAB CODING

Cosine Distance Code of Two Images in MATLAB

```
score_cosine = Image (i);
score_horizontal = dist (Image (j));
    %Cosine distance between vectors
    %where i=0, 0.1, 0.2 ....0.9
    %where j=0, 2, 4, 6 .....256
Vertical
    cosine_threshold = Val (i);
    Disp ('Cosine Compare')
    Disp (score_cosine)
If score_cosine > cosine_threshold
    Disp ('similar images');
Else
    Disp ('dissimilar images');
End
Horizontal
Horizontal_threshold = Val (j+32);
    Disp (' horizontal Compare')
    Disp (score_horizontal)
If score_horizontal < horizontal_threshold
    Disp ('similar images');
Else
    Disp ('dissimilar images');
End
```

Figure 15

EXPERIMENTAL RESULT WITH ANALYSIS

	(X ₁ , Y ₁)	(X ₂ , Y ₂)	(X ₃ , Y ₃)	(X ₄ , Y ₄)	(X ₅ , Y ₅)	
Image:1	(0.7,4.5)	(0.7,32.8)	(0.9,248)	Img are not similar
Image:2	(0.7,156)	(0.9,196)	.....	.....	.....
Image:3	(0.1,64)	(0.6,126)	(0.8,88)	(0.9,64)	.....
Image:4	(0.1,245)	(0.3,188)	(0.8,90)	(0.9,64)	.....
Image:5	(0.3,180)	(0.5,127)	(0.9,89)	Img are not similar
Image:6	(0.4,30)	(0.4,198)	(0.5,95)	(0.9,123)	.....
Image:7	(0.3,95)	(0.4,120)	(0.9,184)	.....	.....
Image:8	(0.3,95)	(0.3,134)	(0.9,184)	(0.3,95)	.....
Image:9	(0.3,10)	(0.4,4)	(0.7,182)	(0.8,22)	(0.9,154)	Img are not similar
Image:10	(0.3,96)	(0.7,8)	(0.8,22)	(0.8,128)	.....
Image:11	(0.4,90)	(0.4,120)	(0.9,181)	.....	.....
Image:12	(0.3,91)	(0.3,130)	(0.9,180)	(0.3,90)	.....
Image:13	(0.6,4.3)	(0.6,30)	(0.8,240)	Img are not similar
Image:14	(0.6,150)	(0.9,192)	.....	.....	.....
Image:15	(0.3,9)	(0.4,5)	(0.7,178)	(0.8,28)	(0.9,151)	
Image:16	(0.3,91)	(0.7,11)	(0.8,30)	(0.8,132)	.....

Figure 16

CONCLUSIONS & FUTUREWORK

Build the efficiency from human-machine interaction is a very important concept for goal of the gestured recognitions machine. More application of gestured recognitions to system runs from virtual reality and sign language, robots controlling. This paper is survey of multi gesture reorganizations tool and technique. It has been provides with emphasis on image gestures and different expression. Most of researchers are uses color image for achieved best result. To Comparison between different images to be recognition machines has been present with explain of the important parameter needed for any recognitions of machine which includes, segmentation process, feature extractions, and the classification algorithm.

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